**CPS841 Reinforcement Learning Assignment 2 Question 3 Report  
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**Execution \_**

The programs for policy and value iteration are both written in C++. To execute the code in a bash terminal you can use the Makefile provided by running this code:  
> **make run**

The 6 values the user can input are in the Makefile.

R1 is up, R2 is down, R3 is left and R4 is right.  
To run the code regularly use this:

> **g++ -o pia pia.cpp --std=c++11**  
> **./pia prob1 prob2 r1 r2 r3 r4**

> **g++ -o via via.cpp --std=c++11**> **./via prob1 prob2 r1 r2 r3 r4**

**Analysis \_**

My testing parameters we’re always the same since I would the same rewards and probabilities when comparing the two algorithms.

**NOTE: My actions were setup such that 0 = up, 1 = down, 2 = left, 3 = right.**

**First Test:**

Prob1 = 0.6 Prob2 = 0.3 Reward Up = -1 Reward Down = -1 Reward Left = -1 Reward Right = -1